

## PRODUCT: Orange Essential Oil - Italy - PK-1321UF

## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)  
with its amendment Regulation (EU) 2020/878 - Issue Date 13/12/2022

### Section 1. Identification of the substance or the mixture and of the supplier

#### 1.1. Product Identifier

Product identifier	: Orange Essential Oil - Italy - PK-1321UF
Biological Definition	: Citrus Aurantium Dulcis Orange Peel Oil is the volatile oil obtained from fresh orange peels.
INCI name	: Citrus Aurantium Dulcis Orange Peel Oil
Synonyms and Trade Names	: Orange Oil
Botanical name	: Citrus Sinensis ( L. ) Osbeck
CAS#1	: 8028-48-6
CAS#2	: 8008-57-9
EINECS/EC number	: 232-433-8
FEMA number	: 2825
FDA number	: 182.2
CoE number	: 143
RIFM number	: 192

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#### 1.2. Relative identified uses of the substance or mixture and uses advised against

Flavours and Fragrances : Use in accordance with good manufacturing and industrial hygiene practices. Not for personal use in this concentration.

### Section 2. Hazard Identification

#### 2.1 Classification of the substance or mixture

The full text for the all hazard statements are displayed in section 16

#### Classification under Regulation (EC) N. 1272/2008

Class and category of danger	: Flammable liquid , category 3 , H226 Aspiration Hazard , category 1 , H304 Skin irritation/corrosion , category 2 , H315 Skin sensitization , category 1 , H317 Aquatic Acute hazard , category 1 , H400 Aquatic Chronic hazard , category 1 , H411
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#### 2.2 Label elements

#### Label in accordance with (EC) N. 1272/2008



Signal word	: Danger
Contains	: Limonene, Pinene, Myrcene, Decanal, Linalool
Hazard statement	: H226 , flammable liquid and vapour H304 , May be fatal if swallowed and enters airways H315 , cause skin irritation H317 , may causes an allergic skin reaction H400 , very toxic to aquatic life H411 , toxic to aquatic life with long lasting effects

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**Precautionary statements**

- : P210 , keep away from heat, sparks, open flames and hot Surface. No smoking
- P233 , keep container tightly closed
- P240 , Ground/bond container and receiving equipment
- P241 , Use explosion-proof electrical/ventilating/light equipment
- P242 , Use only non-sparking tools
- P243 , Take precautionary measures against static discharge
- P261 , Avoid breathing dust/fume/gas/mist/vapours/spray
- P264 , Wash hands and other contacted skin thoroughly after handling
- P272 , Contaminated work clothing should not be allowed out of the workplace
- P273 , Avoid release to the environment
- P280 , Wear protective gloves/clothing , eye/face protection
- P301/310 , IF SWALLOWED: immediately call a POISON CENTER or doctor/physician
- P303/361/353 , IF ON SKIN (or hair) : Remove/Take off immediately all contaminated clothing . Rinse skin with water/shower
- P331 , Do NOT induce vomiting
- P333/313 , If skin irritation or a rash occurs: Get medical advice/attention
- P362 , Take off contaminated clothing and wash before reuse
- P370/378 , In case of fire : Use carbon dioxide, dry chemical, foam for extinction
- P391 , Collect spillage
- P403/235 , store in well ventilated place . keep cool
- P405 , Store locked up
- P501 , dispose of contents/container to approved disposal site , in accordance with local regulations

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### 2.3 Other Hazards

PBT or vPvB according to Annex XIII : No additional data available.  
Adverse physio-chemical properties : No additional data available.  
Adverse effects on human health : No additional data available.

## Section 3. Composition/Information on ingredients

### 3.1 Substances

NAME : Orange Oil  
CAS#1 : 8028-48-6  
CAS#2 : 8008-57-9  
EC-No. : 232-433-8

<99.0 % **D-Limonene** CAS-No: 5989-27-5 EC No.: 227-813-5  
Classification (EC 1272/2008): Flam. Liq. 3 - H226, Skin Irrit. 2 - H315, Skin Sens. 1 - H317  
Asp. Tox. 1 - H304, Aquatic Acute 1 - H400, Aquatic Chronic 1 - H410

< 1.0% **α-Pinene** CAS-No: 80-56-8 EC No.: 201-291-9 Classification (EC 1272/2008): Flam. Liq. 3 - H226, Skin Irrit. 2 - H315, Skin Sens. 1 - H317  
Asp. Tox. 1 - H304

< 3.0 % **Myrcene** (7-methyl-3-methyleneocta-1,6-diene) CAS-No: 123-35-3 EC No.: 204-622-5 Classification (EC 1272/2008): Flam. Liq. 3 - H226, Skin Irrit. 2 - H315, Eye Irrit. 2 - H319 Asp. Tox. 1 - H304

< 2.0 % **Decanal** CAS-No: 112-31-2 EC No.: 203-957-4 Classification (EC 1272/2008): Skin Irrit. 2 - H315, Aquatic Chronic 3 - H412

< 2.0% **Linalool** CAS-No: 78-70-6 EC No.: 201-134-4 Classification (EC 1272/2008): Skin Irrit. 2 - H315

## Section 4. First-aid measures

### 4.1 Description of first aid measures

Inhalation : Remove from exposure area to fresh air and immediately obtain medical advice.  
Ingestion : Wash mouth out with water and immediately obtain medical advice. DO NOT INDUCE VOMITING !  
Skin Contact : Take off clothing and wash immediately with soapy water. Seek medical advice if irritation persists if there is any sign of skin damage.  
Eyes Contact : Rinse thoroughly with water for at least 15 minutes. Remove contact lenses. Seek medical advice.

### 4.2 Most important symptoms and effects, both acute and delayed

May be fatal if swallowed and enters airways  
Causes skin irritation , can cause bloodshot eyes

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May cause an allergic skin reaction  
For inhalation can cause slight headache

### 4.3 Indication of any immediate medical attention and special treatment needed

Immediate medical assistance : see section 4.1 for further information  
Immediate special treatment : see section 4.1 for further information  
First aid specific means : eye wash fountains/safety shower should be available in the work area

## Section 5. Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media :

Small fire : Use carbon dioxide , dry chemical , foam . Spray to base of flames.

Large fire : Use water spray or fog. Cool containers with a water jet to prevent pressure build up, autoignition or explosion.

Unsuitable extinguishing media :

Pressurised water jet.

### 5.2 Special hazards arising from the substance or mixture

Vapour may form an explosive mixture with air. In case of fire, Carbon monoxide , Carbon dioxide, smoke and soot may be liberated.

### 5.3 Advice for fire fighters

Standard procedure for chemical fires. Spray extinguishing media to base of flames. Wear protective clothing. Avoid inhalation of vapours. Wear suitable respiratory equipment . In case of ignition , cool the endangered containers .

## Section 6. Accidental release measures

### 6.1 Personal precautions , protective equipment and emergency procedures

Ensure adequate ventilation of the working area. Evacuate personnel to a safe area. Wear protective clothing as described in Section 8 of this safety data sheet.

### 6.2 Environmental precautions

Do not allow to enter canals, waterways, groundwater , soil .

### 6.3 Methods and materials for containment and cleaning up

Remove ignition sources and provide adequate ventilation . Soak up with absorbent , inert material , or sand . Wash with water and detergent .

### 6.4 Reference to other sections

Please refer to section 4,8 and 13 .

## Section 7. Handling and storage

### 7.1 Precautions for safe handling

Apply good manufacturing practice & industrial hygiene practices, ensuring proper workplace ventilation. Keep original container closed. Avoid contact with skin and eyes. Observe good personal hygiene, and do not eat, drink or smoke whilst handling. Keep away from heat, sparks and open flame. Avoid exposing to high temperatures during processing.

### 7.2 Conditions for safe storage , including any incompatibilities

To be stored in tightly closed containers, preferably under an inert atmosphere (e.g. nitrogen) with minimum head space protected from daylight. Store in a dry, aerated place (between 0 - 25°C) away from heat and ignition sources.

### 7.3 Specific end uses

Flavours and Fragrances according to good manufacturing and industrial hygiene practices .

## Section 8. Exposure controls/personal protection

### 8.1 Control parameters

#### 8.1.1. National occupational exposure and biological limit values

No additional information available

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

No additional information available

#### 8.1.5. Control banding

No additional information available

### 8.2 Exposure controls

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### Protective Equipment



Process Conditions	: Provide eyewash station.
Engineering Measures	: Provide adequate ventilation Avoid static discharges in working area.
Respiratory Equipment	: Avoid breathing vapours. Respiratory equipment should not be necessary with adequate ventilation.
Hand Protection	: Avoid all skin contact. Wear chemical resistant gloves (PVC) tested to EN374.
Eye Protection	: Avoid contact with eyes. Wear approved safety goggles with built in frame tested to EN166.
Other Protection	: No additional data available.
Hygiene Measures	: Good personal hygiene practices are always advisable, especially when working with chemicals / oils. Keep away from foodstuffs, beverages and feed.
Personal Protection	: Avoid inhalation and contact with skin and eyes.
Skin Protection	: Wear apron or protective clothing in case of splashes.
Environmental Exposure Controls:	Avoid discharging into drainage water. Only eliminate by authorized companies.

### Section 9. Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

Appearance	: From Yellow to Red liquid
Odour	: Characteristic of Orange
Odour threshold	: Not determined
pH	: Not applicable
Melting point/Freezing point	: No data available
Initial boiling point and range	: 160.00 °C. @ 760.00 mm Hg
Flash point	: 53°C
Evaporation rate ( vs H <sub>2</sub> O)	: < 1
Upper/lower flammability	: Not data available
Vapour pressure	: 0.97 mm/Hg @ 25.00 °C
Vapour density	: > 1
Relative density	: 0,84 – 0.87 gr/ml @ 25.00 °C
Solubility	: Not soluble in water
Partition coeff n-octan/water	: Not data available
Auto-ignition temperature	: 235°C
Decomposition temperature	: Not data available
Viscosity	: 1mPa*s
Explosive properties	: Not data available
Oxidizing properties	: Not data available

#### 9.2 Other Information

Not available

### Section 10. Stability and reactivity

#### 10.1 Reactivity

Not present important reactivity hazard

#### 10.2 Chemical stability

Stable at normal conditions of storage

#### 10.3 Possibility of hazardous reactions

Not expected at normal conditions of use

#### 10.4 Conditions to avoid

Excessive heat , flames

#### 10.5 Incompatible materials

Acids , Alkalis , oxidising agents

#### 10.6 Hazardous decomposition products

Not expected under normal temperature conditions and recommended use.

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#### Section 11. Toxicological Information

##### 11.1 Information of toxicological effects

Acute Dermal Toxicity LD50 [Rat]	: >5000 mg/kg
Acute Oral Toxicity LD50 [Rat]	: >5000 mg/kg
Acute Inhalation LD50 [Rat]	: >5000 mg/kg
Skin Corrosion/Irritation	: Causes skin irritation ( H315 )
Serious eye damages/irritation	: Not classified as irritating today (source CSR)
Respiratory or skin sensitisation	: May cause an allergic skin reaction (H317)
Germ cell mutagenicity	: Negative (sources CSR)
Carcinogenicity	: No tested (sources CSR)
Reproductive toxicity	: No additional data available
STOT-single exposure	: No additional data available
STOT-Repeated exposure	: No additional data available
Aspiration hazard	: May be fatal if swallowed and enters airways (H304)
Photo-toxicity	: No additional data available
Other information	: No additional data available

##### 11.2 Information of toxicological effects

Endocrine disrupting properties  
None of the ingredient is listed

#### Section 12. Ecological information

##### 12.1 Toxicity

The product contains a substance which is toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

##### 12.2 Persistence and degradability

To be considered as readily biodegradable based on its ready biodegradability. Oil does not fulfil the criteria for persistence.

##### 12.3 Bioaccumulative potential

H410 very toxic to aquatic life with long lasting effects.

##### 12.4 Mobility in soil

Considered as a readily biodegradable NCS. Based on the ready biodegradability of the NCS, simulation tests in surface water, sediment and soil are not required in accordance with column2 of REACH Annex IX.

##### 12.5 Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

##### 12.6 Endocrine disrupting properties

No additional information available

##### 12.7 Other adverse effects

Do not discharge into the environment especially not into waterways, sewers and the sea.

#### Section 13. Disposal considerations

##### 13.1 Waste treatment methods

Dispose in accordance with federal, state or local environmental regulations. Contact a licensed professional waste disposal service to dispose of empty containers , that should be taken to an approved waste handling site for recycling or disposal .

#### Section 14. Transport Information

##### 14.1 UN number

UN No. Road/Sea/Air : UN 1197

##### 14.2 UN Proper Shipping Name

EXTRACTS, LIQUID for flavour or aroma.

##### 14.3 Transport hazard class

ADR/RID/AND Class	: 3 Flammable liquid
IMDG Class	: 3 Flammable liquid
ICAO Class/Division	: 3 Flammable liquid

Transport Labels

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### 14.4 Packaging group

ADR/RID/AND Packing Group : III  
IMDG Packing Group : III  
ICAO Packing Group : III

### 14.5 Environmental hazards

Environmentally hazardous substances/Marine pollutant



### 14.6 Special precautions for user

This product contains flammables and dangerous for the environment. In case on pouring out, make sure label new packaging accordingly. Reproducing original label with relevant symbols.

### 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not additional data available

## Section 15. Regulatory Information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I. 2009 No. 716).

#### Guidance Notes

Workplace Exposure Limits EH40. CHIP for everyone HSG(108).

#### EU Legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

### 15.2 Chemical Safety assessment

No additional data available

## Section 16. Other Information

### Hazard and/or precautionary

Statements in full : H226 , flammable liquid and vapour  
H304 , May be fatal if swallowed and enters airways  
H315 , cause skin irritation  
H317 , may causes an allergic skin reaction  
H400 , very toxic to aquatic life  
H411 , toxic to aquatic life with long lasting effects

Other information : Complies with REACH guidance for SDS as circulated by ECHA 2011.

Revision Date : 13/12/2022

Reason of Revision : in compliance with the Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

The information provided in this safety data sheet is correct to the best of our knowledge. Furthermore, the information quoted is intended only as guidance for safe handling, use, processing, storage, transportation, disposal and is not to be considered as a warranty or quality specification.